

### **REMARKS**

Applicants hereby request further consideration of the application in view of the comments that follow.

### **Status of the Claims**

Claims 1-3, 10-15, 19-25, 31-37, and 42-43 stand rejected under Section 102(b) as being anticipated by U.S. Patent No. 4,945,730 to Laney (Laney). Claims 4-9, 16-18, 26-30, and 38-41 stand objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form.

### **The Rejections under Section 102**

Claims 1-3, 10-15, 19-25, 31-37, and 42-43 stand rejected under Section 102 as being anticipated by Laney.

Claims 1 and 24 are the only independent claims pending in the present application.

Claim 1 recites:

1. A tool for securing a connector on a conductor using an explosive charge, the tool comprising:
  - a) a first tool member;
  - b) a second tool member movably mounted on the first tool member;
  - c) a breech chamber defined in at least one of the first and second tool members, the breech chamber being adapted to receive the explosive charge;
  - d) a breech opening defined in at least one of the first and second tool members, the breech opening communicating with the breech chamber; and
  - e) a drive member, wherein the tool is adapted to forcibly move the drive member responsive to an explosion of the explosive charge in the breech chamber;
  - f) wherein the second tool member is movable between a closed position, wherein the breech opening is closed, and an open position, wherein the breech opening is open to allow loading and unloading of the explosive charge into and from the breech chamber, by sliding the second tool member relative to the first tool member **along**

a slide axis and additionally pivoting the second tool member relative to the first tool member about a pivot axis transverse to the slide axis.

(Emphasis added). Claim 24 recites:

24. A method for using a tool for securing a connector on a conductor using an explosive charge, the tool including a first tool member, a second tool member movably mounted on the first tool member, a breech chamber defined in at least one of the first and second tool members, the breech chamber being adapted to receive the explosive charge, a breech opening defined in at least one of the first and second tool members, the breech opening communicating with the breech chamber, and a drive member, wherein the tool is adapted to forcibly move the drive member responsive to an explosion of the explosive charge in the breech chamber, the method comprising the steps of:

- a) sliding the second tool member relative to the first tool member along a slide axis; and
- b) pivoting the second tool member relative to the first tool member about a pivot axis transverse to the slide axis;

such that the second tool member is moved from a closed position, wherein the breech opening is closed, to an open position, wherein the breech opening is open to allow loading and unloading of the explosive charge into and from the breech chamber.

(Emphasis added).

Referring to the exemplary tool 45 as described in applicants' specification, the tool 45 includes a breech 102 and a breech cap sleeve 152. The tool 45 can be opened by sliding the breech cap sleeve 152 relative to the breech 102 along a slide axis S-S (to transition from the position of **Figure 9** to the position of **Figure 8**), and thereafter pivoting the breech cap sleeve 152 relative to the breech 102 about a pivot axis **P-P** (to transition from the position of **Figure 8** to the position of **Figure 6** or **Figure 7**). The pivot axis **P-P** is transverse to the slide axis S-S.

In support of the rejection under Section 102, the Action states:

Laney discloses a power tool comprising an explosive charge for applying connectors to power lines, comprising first tool member 22, a second tool member including a breech assembly 47 having a breech opening 66, the explosive charge is activated to slide the first member relative to the second member.

However, the ram 22 of the Laney tool 10 cannot properly correspond to the "first member" as claimed. If the ram 22 were to correspond to the first member, then there would be no apparent structure that would correspond to the "drive member" as recited in Claims 1 and 24. Moreover, the breech housing 47 cannot be moved between a closed position and an open position by sliding the housing 47 along a slide axis relative to the ram 22 and pivoting the housing about a pivot axis transverse to the slide axis as recited in Claims 1 and 24, as discussed in greater detail below with regard to the interaction between the proposed main breech member 32 and the breech housing 47 of Laney.

The Laney device is opened and closed in a very different manner from the tool as recited in Claims 1 and 24. The Laney tool 10 includes the main breech member 32 and the breech housing 47. The breech housing 47 has a key 62 engaging a slot 41 on the housing 47 for guiding the breech housing 47 through longitudinal and circumferential movements on the breech member 32. The breech housing 47 also has a window or breech opening 66 for inserting a cartridge into the firing chamber. In order to open the Laney tool 10 to load the tool with a cartridge, the housing 47 is rotated about a longitudinal axis, and then slid along the longitudinal axis. Once the tool is opened, the cartridge can be inserted into the housing through the opening 66. The tool 10 is then closed by sliding the housing 47 along the longitudinal axis and rotating the housing 47 about the longitudinal axis.

Thus, in the Laney tool 10, the housing 47 is moved between the opened and closed positions by sliding the housing 47 along a slide axis and rotating the housing 47 about the same axis or a parallel axis, not by pivoting the housing 47 about a further axis that is transverse to the slide axis.

Tools in accordance with embodiments of Applicants' claimed invention can provide a number of significant advantages over tools of the type disclosed in Laney. For example, in a tool as claimed, the breech opening may be fully opened for greater ease in inserting and

removing a cartridge. The procedure for inserting and removing a cartridge may be substantially simplified. For example, in the tool as illustrated in Applicants' specification, the cartridge can be easily and directly inserted into the breech cavity. In contrast, the Laney tool requires that the cartridge be first inserted into the housing 47 and thereafter shuttled into the breech member 32 by sliding the housing 47 forward. In practice, tools of the type disclosed in Laney may experience problems with cartridges jamming when operators fail to properly line up the cartridge in the housing 47 prior to sliding the housing 47 closed. In addition, after firing, the cartridge may be somewhat melted or deformed, potentially causing significant difficulties in removing the cartridge from the breech and through the opening 66. The aspects of Applicants' invention as recited in Claims 1 and 24 can reduce the deficiencies in the art. Moreover, the claimed inventions may allow for the further incorporation of additional features such as gas release fail-safe features and pre-firing safety features.

In view of the foregoing, Applicants respectfully submit that Claims 1 and 24 are clearly allowable over the cited art for at least the reasons noted. Claims 2, 3, 10-15, 19-23, 25, 31-37, and 42-43 depend from Claims 1 and 24 and are therefore allowable as well for at least these reasons. As acknowledged by the Examiner, Claims 4-9, 16-18, 26-30, and 38-41 recite independently patentable subject matter.

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**CONCLUSION**

Applicants respectfully submit that this application is now in condition for substantive examination, which action is requested. Should the Examiner have any matters outstanding of resolution, he is encouraged to telephone the undersigned at 919-854-1400 for expeditious handling.

Respectfully submitted,



David D. Beatty  
Registration No. 38,071  
Attorney for Applicants

Marguerite E. Gerstner  
Tyco Electronics Corporation  
Intellectual Property Law Department  
M/S R20/2B  
307 Constitution Drive  
Menlo Park, California 94026-1164  
Tel.: 650-361-2483  
Fax: 650-361-5623

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Katie A. Chung